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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,091	01/13/2004	Michael Putnam	PGI6044P1231US	3082
32116	7590	01/09/2006	EXAMINER	
WOOD, PHILLIPS, KATZ, CLARK & MORTIMER 500 W. MADISON STREET SUITE 3800 CHICAGO, IL 60661			DANIELS, MATTHEW J	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/756,091

Applicant(s)

PUTNAM ET AL.

Examiner

Matthew J. Daniels

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. In the response received 11 October 2005, Claim 2 was cancelled and Claims 1 and 4 were amended. No new claims were presented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Curro (USPN 4695422) in view of Chen (USPN 5990377). **As to Claim 1**, Curro teaches a method of making an imaged thermoplastic film (Abstract, Figs. 10 and 11), comprising the steps of: providing a thermoplastic film (Column 6); providing a foraminous surface (Fig. 5) in the form of a three-dimensional image transfer device (Figs. 10 and 11); unwinding said thermoplastic film (6:60-63); advancing said film onto said foraminous surface (Fig. 2); impinging said film with hydraulic pressure so as to impart a three-dimensional image into said film (Figs. 2, 5, 10, and 11); and drying said imaged thermoplastic film (7:50-65). Curro appears to be silent to the drying process comprising the use of a frequency range of electro-magnetic radiation that preserves the three-dimensional image imparted into said film. Chen teaches drying comprising the use of a frequency range of electro-magnetic radiation that preserves said image imparted into said film (13:29-46). It would have been prima facie obvious to one of ordinary skill in the

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art at the time of the invention to combine the method of Chen with that of Curro in order to avoid loss of the three-dimensional structure of the film and to increase the drying speed, increasing the speed of the process. **As to Claim 3**, Chen teaches microwaves (13:36-37).

3. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Curro (USPN 4695422) in view of Chen (USPN 5990377) and Langdon (USPN 5549777). **As to Claim 4**, Curro teaches a method of making an imaged thermoplastic film (Abstract, Figs. 10 and 11), comprising the steps of: providing a thermoplastic polymeric melt (2:10-13); providing a foraminous surface (Fig. 2, Item 97); extruding said polymeric melt directly onto the foraminous surface, impinging the film with hydraulic pressure to impart an image into the film (Figs. 2 and 5), and drying the imaged thermoplastic film (7:50-65). Curro appears to be silent to a) providing a support layer comprising a nonwoven fabric and extruding the polymeric melt directly onto the nonwoven fabric to form a laminate, b) advancing said film laminate onto said foraminous surface, and c) a drying process comprising the use of a frequency range of electromagnetic radiation that preserves said image imparted into said film. However, these aspects would have been prima facie obvious to one of ordinary skill for the following reasons:

a and b) Langdon teaches providing a support layer comprising a nonwoven fabric and extruding the polymeric melt directly onto the nonwoven fabric to form a laminate (10:28-39), and advancing the film laminate onto the foraminous surface (10:28-39), and subsequently forming with hydraulic pressure (12:12-38).

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c) Chen teaches drying comprising the use of a frequency range of electro-magnetic radiation that preserves said image imparted into said film (13:29-46).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine the methods of Langdon and Chen with that of Curro in order to provide an absorbent apertured web that can be used as a topsheet without further processing (Langdon, 12:65-13:2), creating the appearance of a fibrous web which is perceived as soft and friendly while maintaining the fluid transport benefits of prior art plastic webs (Langdon, Abstract) and to increase the process speed by increasing the drying speed while avoiding loss of the three-dimensional structure of the film.

Response to Arguments

4. Applicant's arguments filed 11 October 2005 have been fully considered but they are not persuasive, or are moot in view of the new ground(s) of rejection. The arguments appear to be on the following grounds:

- a) Curro fails to teach or suggest a three-dimensional image transfer device
- b) Curro fails to teach a laminate
- c) There is no teaching in the Chen reference of employing electro-magnetic radiation for drying hydraulically imaged film or laminate. Chen limits teachings to a hydrophilic resilient cellulosic tissue sheet.

5. These arguments are not persuasive for the following reasons:

a) It is unclear how the Applicant's arguments distinguish the instant method from that of Curro.

The Examiner considers the forming structure of Curro, shown specifically in Fig. 10, to be both three-dimensional (See the nubs, 156, in particular) and transferred to the formed web, Fig. 11.

The Examiner respectfully submits that Curro's forming device is therefore a three-dimensional image transfer device. Additionally, the Applicant's disclosure and remarks (Page 5, line 3), appear to admit that the forming structure is conventional. The Examiner submits that the rejection is valid, and in the alternative, this aspect is well known and conventional, as admitted by Applicant's disclosure and remarks.

b) Curro clearly teaches a laminate (19:1-15), and the Examiner submits that forming laminates by hydraulic pressure is well known in the art. A reference to Lee addressed the previous claim, and a revised rejection is presented in this action in response to the particular laminate now claimed. Both the previous rejection (in view of Lee) and the instant rejection (in view of Langdon) provide a laminate that is formed by hydraulic pressure, rendering obvious the instant claims.

c) In response to the assertion in the Applicant's remarks that Chen does not teach the electro-magnetic drying for hydraulically imaged film, the Examiner respectfully disagrees and reproduces the following portions from the reference to Chen to show the basis for the Examiner's assertions.

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From Chen (USPN 5990377), column 6, lines 2-21

Applicant have found a useful means for providing apertures in a nonwoven web in a pattern which corresponds geometrically to the depressed regions of a molded, three-dimensional basesheet wherein the basesheet was molded on a foraminous textured substrate such as a three-dimensional through-drying fabric. The method involves hydroentangling, which is a well known principle involving the use of high pressure water jets to modify a fibrous surface. Basic principles of hydroentangling are disclosed by Evans in U.S. Pat. No. 3,485,706 issued in 1969, and in U.S. Pat. No. 3,494,821 issued in 1970, both of which are herein incorporated by reference. Hydroentangling, as is known in the art, can be used to impart apertures to a nonwoven web. In one well known technique, the nonwoven web is carried on a textured, permeable carrier fabric. The action of water jets on the nonwoven web as it resides on the textured fabric causes fibers to be moved away from the elevated portions of the carrier fabric on which the nonwoven web reside, resulting in apertures where the carrier fabric was elevated. If a nonwoven web is placed on the

From Chen (USPN 5990377), column 13, lines 29-50

"Noncompressive drying" refers to drying methods for drying cellulosic webs that do not involve compressive nips or other steps causing significant densification or compression of a portion of the web during the drying process. Such methods include through-air drying; air jet impingement drying; non-contacting drying such as air flotation drying, as taught by E. V. Bowden, E. V., Appita J., 44(1): 41 (1991); through-flow or impingement of superheated steam; microwave drying and other radiofrequency or dielectric drying methods; water extraction by supercritical fluids; water extraction by nonaqueous, low surface tension fluids; infrared drying; drying by contact with a film of molten metal; and other methods. It is believed that the three-dimensional basesheets of the present invention could be dried with any of the above mentioned noncompressive drying means without causing significant web densification or a significant loss of their three-dimensional structure and their wet resiliency properties. Standard dry creping technology is viewed as a compressive drying method since the web must be mechanically pressed onto part of the drying surface, causing significant densification of the regions pressed onto the heated Yankee cylinder. Technology to noncompressively dewater

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It is unclear whether the remarks assert that the method of Chen is non-analogous, or that there is no motivation to combine the method Chen with the other cited references. However, the Examiner submits that the ordinary artisan would have found the drying method of Chen to be analogous by fulfilling either of the two-prong analysis for analogousness set forth in MPEP 2141.01(a). In the alternative, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Examiner submits that Chen's teaching to use noncompressive drying to avoid compressing the web provides suitable motivation to incorporate the microwave drying of Chen into the method of Curro. The Examiner submits that the ordinary artisan using the method of Curro obviously wants to preserve the three-dimensional structure of the web produced by not compressing it during drying.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Friday, 7:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJD 12/26/05



MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER